

Application Serial No. 10/501,842  
Amendment dated March 3, 2008  
Reply to Office Action dated September 4, 2007

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (previously presented): A frequency shifted feedback emission source, comprising means to increase emission frequency component beat intensity.

Claim 2 (previously presented): The frequency shifted feedback emission source according to claim 1, wherein the means to increase emission frequency component beat intensity is configured as a means for non-stochastic emission frequency component beat intensity increasing.

Claim 3 (previously presented): The frequency shifted feedback emission source according to claim 2, wherein the means to increase emission frequency component beat intensity includes an injection light source.

Claim 4 (previously presented): The frequency shifted feedback emission source according to claim 3, wherein the injection light source includes an injection laser.

Claim 5 (currently amended): The frequency shifted feedback emission source according to claim 3, wherein the injection light source is configured to inject irradiation into [[the]] a resonator of the frequency shifted feedback emission source, specifically for irradiation into [[the]] an amplification medium.

Claim 6 (previously presented): The frequency shifted feedback emission source according to claim 3, wherein the injection light source is configured for emission of irradiation of an irradiation frequency close to the upper or lower amplification threshold (G-1).

Claim 7 (previously presented): The frequency shifted feedback emission source according to claim 3, wherein the injection light source for the irradiation of injection light is narrowband in reference to the amplification bandwidth of the frequency shifted feedback

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emission source, specifically a bandwidth below 5% of the bandwidth of the amplification of the frequency shifted feedback emission source.

**Claim 8 (previously presented):** The frequency shifted feedback emission source according to claim 3, wherein the injection light source is configured for irradiation of the appropriate intensity and/or phase of the optical carrier.

**Claim 9 (previously presented):** The frequency shifted feedback emission source according to claim 8, wherein the injection light source is configured for regular modulation of intensity and/or phase of the injection light.

**Claim 10 (previously presented):** The frequency shifted feedback emission source according to claim 9, wherein the injection light source is configured to perform a periodic modulation of intensity and/or phase that changes with time.

**Claim 11 (previously presented):** The frequency shifted feedback emission source according to claim 9, wherein the injection light source is configured so at least temporally one linear modulation frequency variation takes place.

**Claim 12 (previously presented):** The frequency shifted feedback emission source according to claim 8, wherein the injection light source is configured so that modulation lies in the magnitude order and/or close to distances determined using the emission source and a given chirp rate from the frequency shifted feedback emission source is obtained.

**Claim 13 (previously presented):** The frequency shifted feedback emission source according to claim 8, wherein the frequency shifted feedback emission light source is a laser.

**Claim 14 (currently amended):** The frequency shifted feedback emission source according to claim 1, wherein an optical fiber is used internally in [[the]] a resonator.

**Claim 15 (previously presented):** A distance measurement configuration with an emission light source according to claim 1.

Claim 16 (previously presented): The distance measurement configuration according to claim 15, including irradiation optics used to broadly illuminate a surface to be investigated with light from the emission source and means to obtain a beat spectrum containing height profile information.

Claim 17 (previously presented): The distance measurement configuration according to claim 15, including an optic to direct irradiation from the emission light source to a defined partial range of an object.

Claim 18 (currently amended): A process for operating [[a]] the frequency shifted feedback emission light source of claim 1, wherein the beat intensity of the frequency components of the emitted irradiation are increased beyond what is achieved in a stationary condition through spontaneous emission.

Claim 19 (previously presented): The frequency shifted feedback emission source according to claim 4, wherein the injection light source is configured to inject irradiation into the resonator of the frequency shifted feedback emission source, specifically for irradiation into the amplification medium.

Claim 20 (previously presented): The frequency shifted feedback emission source according to claim 4, wherein the injection light source is configured for emission of irradiation of an irradiation frequency close to the upper or lower amplification threshold (G-1).

Claim 21 (previously presented): The frequency shifted feedback emission source according to claim 3, wherein the injection light source for the irradiation of injection light is narrowband in reference to the amplification bandwidth of the frequency shifted feedback emission source, specifically a bandwidth below 1% of the bandwidth of the amplification of the frequency shifted feedback emission source.

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Claim 22 (new): A frequency shifted feedback emission source, comprising:

    a frequency shifted feedback laser having a pump laser light source pumping optical energy into gain medium to cause lasing; and

    an injection laser source separate from said pump laser light source injecting optical energy into said frequency shifted feedback laser to increase the beat intensity of the emitted frequency components.